

WHAT IS CLAIMED IS:

1. A fluid filled engine mount for an automotive vehicle,
comprising:

5 a first mounting member fixable to a power unit side of the vehicle;
a second mounting member fixable to a body side of the vehicle, and
disposed spaced away from the first mounting member;

an elastic body for elastically connecting the first mounting member
and the second mounting member;

10 a pressure receiving chamber filled with non-compressible fluid and
partially defined by the elastic body so as to excite fluid pressure
fluctuation upon input of vibration;

an equilibrium chamber filled with the non-compressible fluid and
partially defined by a flexible layer so as to permit change in volume;

15 a first orifice passage for connecting the equilibrium chamber to the
pressure receiving chamber, and tuned so as to excite resonance of the fluid
flowing therethrough between the pressure-receiving and the equilibrium
chambers in a vibration frequency range of a low-frequency
large-amplitude such as engine shakes;

20 a partition rubber plate partially defining the pressure receiving
chamber, and tuned so as to perform absorption of the fluid pressure
fluctuation of the pressure-receiving chamber in a vibration frequency
range of a high-frequency small-amplitude such as booming noises during a
vehicle running state;

25 an oscillating chamber filled with the non-compressible fluid formed
on an opposite side across from the partition rubber plate in relation to the
pressure receiving chamber;

a second orifice passage for connecting the oscillating chamber to
the pressure receiving chamber, and tuned so as to excite resonance of the
30 fluid flowing therethrough between the oscillating chamber and the

pressure receiving chamber in a vibration frequency range of a medium-frequency medium-amplitude such as idling vibrations;

an oscillating rubber elastic plate having an expansion spring smaller than that of the partition rubber plate and partially defining the oscillating chamber;

a working air chamber formed on an opposite side across from the oscillating rubber elastic plate in relation to the oscillating chamber;

an air pressure passage connected to the working air chamber for externally controlling air pressure in the working air chamber; and

an air pressure control unit for controlling the air pressure exerted to the working air chamber through the air pressure passage so as to exert air pressure fluctuation to the working air chamber with a frequency corresponding to the idling vibration during a vehicle idling state, and to make the working air chamber an approximate atmospheric pressure during the vehicle running state.

2. A fluid-filled engine mount according to claim 1, wherein the second mounting member is formed as a cylindrical body, the first mounting member is disposed spaced away from one of opposite openings of the second mounting member, the first mounting member and second mounting member are connected with an elastic body so as to fluid-tightly close the one of the opposite openings of the second mounting member and to fluid-tightly close an other one of the opposite openings of the second mounting member with a flexible layer, the engine mount further comprising: a first partition member and a second partition member mutually superimposed in the axial direction inside the second mounting member and securely supported with the second mounting member so as to form the pressure receiving chamber between the first partition member and the elastic member and to form the equilibrium chamber between the second partition member and the flexible layer, wherein a recess provided

to a superimposing face side of the second partition member in relation to the first partition member is fluid-tightly closed with the elastic oscillating plate so as to form the working air chamber and to form the oscillating chamber between the elastic oscillating plate and the first partition member; and the aperture provided to the first partition member for partitioning the oscillating chamber and the pressure receiving chamber is fluid-tightly blocked with the partition rubber plate.